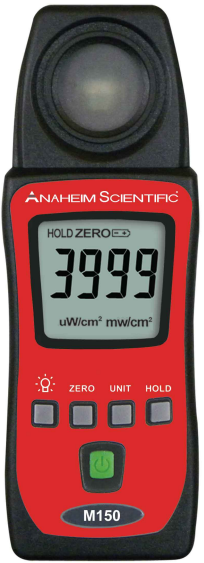
ANAHEIM SCIENTIFIC®

User Manual

Model M150
Mini UV-AB Meter



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1 Introduction

Thank you for purchasing a M150 UV-AB Meter from Anaheim Scientific. The M150 provides professional high quality UV readings from a small compact meter. Durable, reliable, and easy to use, use the M150 for:

1.1 M150 Applications:

- Monitoring blue light radiation hazards in welding
- UV sterilization
- Graphic arts
- Photochemical matching
- Photo resist exposure
- Curing of inks, adhesives and coatings

1.2 Laboratory Applications:

- Weathering "degradation studies"
- UV sterilization
- Virology
- Microbial genetics
- DNA research
- Biologic hoods
- General laboratory use

1.3 The M150 Features:

- Professional, high quality UV meter
- Ultraviolet irradiation measurement of UV
- UV detector spectrum from 290-390 nm

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- Measurement range: 3999 μW/cm^2 and 39.99 W/cm^2
- Zero button
- Microprocessor circuit provides high reliability and durability
- Separate UV LIGHT probe allows user to measure the UV light at an optimum position
- Easy-read-read, large LCD
- Overload display [OL]
- Power off: Manual on/off by push button, or auto shut-off after 15 minutes

2 Safety Summary

CAUTION

Adhere to the following conditions for safe and effective usage of this meter

- This is a precision device. During use or storage, do not go beyond its specifications to prevent any possible damage or danger
- Do not operate the meter in an environment filled with combustible gas, liquids, dust or fibers
- In order to avoid reading incorrect data, please replace the battery immediately when the symbol " " appears on the LCD
- Do not store this device in direct sunlight or where it is hot and/or damp

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- Remember to turn OFF the power after use. For long storage, remove the battery to prevent the battery from leaking to cause damage to the parts inside.
  Operating Environment: This instrument has been designed for usage within an environment of Pollution Degree 2
- Clean the device with a dry soft cloth. Wet cloths, liquid and water are prohibited.
- Operating Environment: 5°C ~ 40°C, <80% RH, ≤2km altitude
- Storage Environment: -10 to 60°C, <70% RH

3 Compliance Statements

	Caution: This symbol indicates that the equipment and its accessories are subject to special collection and disposal procedures

This meter is EMC compliant and has undergone tests according to EN61326 (1997) + A1 (1998) + A2 (2001)

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4 Product Contents and Inspection

This unit is tested prior to shipment. It is therefore ready for immediate use upon receipt. An initial physical inspection should be made to ensure that no damage has been sustained during shipment.

Inspect the packing box on receipt for any external damage. If any external damage is evident, remove the instrument and visually inspect its case and parts for any damage. If damage to the instrument is evident, a description of the damage should be noted on the carrier's receipt and signed by the driver or carrier agent. Save all shipping packaging for inspection. Forward a report of any damage to the agent through which the unit is procured.

Retain the original packing in case subsequent repackaging for return is required. Use of the original packing is essential.

After the mechanical inspection, verify the contents of the shipment. The items included in this package are:

- M150 Meter
- User Manual
- Carrying Case
- 2 x AAA Batteries

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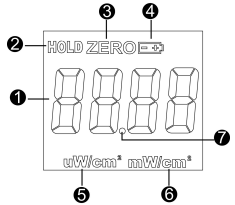
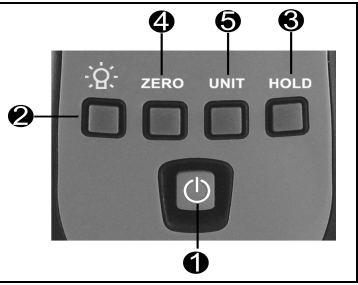
5 Device Description

5.1 LCD Display:



1. Main display
2. Value hold
3. ZERO display
4. Low power indicator
5. μW/cm^2 unit display
6. mW/cm^2 unit display
7. Decimal point display

5.2 Control Buttons:



1. Power switch button
2. Backlight button
3. Hold lock button
4. Zero button
5. Unit button

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6 Device Operation

6.1 Power Button:

- Press the “ ” button to turn ON the power. The display comes alive.
- Press the “ ” button once again to turn OFF the power and put the device into sleep mode. The display changes from light to dark.

6.2 Zero Button:

- Press the “

“button for the zero adjustment if any digits are appearing when the sensor is covered.
- If performing the zero adjustment after powering on, several digits may not disappear. In this case, perform the zero adjustment again.

6.3 Backlight Display:

- Press “ ” key to turn backlight on. Press the “ ” button again to power off.
- Backlight light turns off automatically after 30 seconds.

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6.4 Unit Button:

- Press the “ ” button to turn ON the power and put the device to operating mode. The screen displays 0000μW/cm^2. Press the “” button to switch from 0000μW/cm^2 to 00.00mW/cm^2. To select a different unit, just press this button once again.

6.5 Data Hold Button:

Press the “ ” button to go into hold mode, and “HOLD” appears on the screen to allow you to read the data. Press this button once again to deactivate it.

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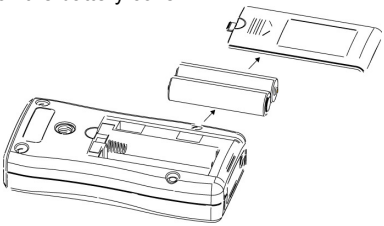
6.6 Battery Replacement:

	WARNING
	If the symbol " [-+] " appears on the LCD, please replace the battery immediately

- Remove the battery cover
- Noting the polarity, replace the battery.
- Install the battery cover.



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7 Technical Specifications

Accuracy	Typically within 20mW/Cm² (±5%+2dgt) , whichever is greater in sunlight; Additional temperature induced error ± 0.38W/Cm² / ℃ from 25℃
Range	3999 μW/cm² ~39.99mW/cm²
Accuracy Attenuation	< ±3/year
UV Spectrum	290 nm to 390 nm
Peak Sensitivity	Wavelegth of 365 nm
Display	3- ¾ digits LCD with max. reading 4000
Units	μW/cm² and mW/cm².
Sampling Rate	About 3 seconds
Power Supply	2 AAA batteries
Battery life	50 hours during consecutive use
Dimensions	133 × 48 × 27 mm (H × W × D)
Weight	90g
Warranty	Limited two-year warranty

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8 Service, Repairs, Calibration

- The following are instructions regarding policies for servicing, repairing or calibrating Anaheim Scientific products. Turnaround time is usually less than ten (10) working days unless expedited service is requested and pre-arranged.
- Send an email to service@anaheimscientific.com requesting an RMA number specifying your request for either service/repair and/or calibration with your product's model number.
- Once you receive a reply from service@anaheimscientific.com, you will be asked to ship prepaid to the address below. Package the unit carefully using filler or bubble wrap, and if possible, ship in the original box. Ship each unit separately. (Anaheim Scientific is not responsible for any shipping damage that may occur.)
- Include a packing list with each unit shipped stating what type of service is required and include the return shipping information: name, address and telephone number.
- If the unit is in warranty, please provide the following: proof of purchase or copy of the original invoice.
- If the unit is out of warranty, prepayment is required by Check, Money Order or Credit Card.
- Return all merchandise to Anaheim Scientific with pre-paid shipping. The flat-rate repair charge for Non-Warranty Service does not include return

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shipping. Return shipping to locations in North American is included for Warranty Service.

- For overnight shipments and non-North American shipping fees please contact Anaheim Scientific

Anaheim Scientific
ATTN: Service/Repair
22820 Savi Ranch Parkway
Yorba Linda, CA 92887

www.anaheimscientific.com

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9 Limited Two-Year Warranty

- Scientific warrants to the original purchaser that its products and the component parts thereof, will be free from defects in workmanship and materials for a period of two years from date of purchase.
- Anaheim Scientific will, without charge, repair or replace, at its option, defective product or component parts. Returned product must be accompanied by proof of the purchase date in the form of a sales receipt.
- To help us better serve you, please complete the warranty registration for your new instrument via our website www.anaheimscientific.com
- Exclusions: This warranty does not apply in the event of misuse or abuse of the product or as a result of unauthorized alterations or repairs. The warranty is void if the serial number is altered, defaced or removed.
- Anaheim Scientific shall not be liable for any consequential damages, including without limitation damages resulting from loss of use. Some states do not allow limitations of incidental or consequential damages. So the above limitation or exclusion may not apply to you.
- This warranty gives you specific rights and you may have other rights, which vary from state-to-state.

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